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ABSTRACT

The change processes involving schools that are currently experiencing turbulent social reconstruction in eastern Europe are examined in this paper, which calls for the development of a new paradigm for social change. The first section describes recent educational reform activities and their flaws in three eastern European countries--Russia, Estonia, and East Germany. Limitations of structuralist and Marxist/Leninist theories are discussed next, both of which assume the inherent equilibrium of the social structure. A new paradigm for understanding social and institutional change, based on the concept of dynamic systems, is advocated. The paradigm, based on the "self-organizing" capacity of all open systems, is founded on the concepts of: (1) open systems with respect to the exchange of resources and information; (2) the necessary state of disequilibrium for alive systems; and (3) the autocatalytic characteristics of the forces for development. The next section relates these theoretical concepts to events observed in fieldwork conducted in East Germany at the time of the Berlin wall's demise. Support activities are suggested for the Russian central ministry for the self-organizing transformation of schools. A conclusion is that research should reflect a view of schools as active, changing, and undergoing continual renewal. (19 references) (LMI)

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NONEQUILIBRIUM THEORY: IMPLICATIONS FOR EDUCATIONAL SYSTEMS UNDERGOING RADICAL CHANGE IN EASTERN EUROPE

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During the past year I have served as a Fulbright Fellow at Humboldt University in Berlin. This has given me an opportunity to sort out the process of educational change, not only in the new German states but in a number of Eastern European locations. My own research interests have to do with the change process, and seldom do I have an opportunity to experience first hand a transformation process of this magnitude and significance. All too often, those of us involved in change studies tend to think of educational change in terms of long historical processes, making schools more efficient, or improving the working conditions of pupils and teachers, or revising aspects of the curriculum. Rarely are we called on to study a change process involving schools that are in the middle of a turbulent social reconstruction, that is calling on schools to help change and reinforce a new basic value system and ideological orientation of a national culture.

One insight that has guided my past work has been reinforced this year. I feel the point of departure of scholarly activities tends to resonate with the broader social context within which scholars work. As that context shifts, the theoretical orientation of scientific inquiry shifts accordingly, and new theoretical orientations continually emerge, which reflect broader social shifts (Paslack 1990). The changes taking place in Eastern Europe are having a profound impact on the thinking of people such as myself, because the theoretical conceptions that have been standard in my social science activities have proven to be inadequate to explain these events. I am finding it necessary to rethink the basic intellectual framework on which I have based my past work, because the situation calls into question the basic premises on which my past work has been based.

Change Strategies in Three Countries

Let me outline three different activities taking place in three Eastern European areas: Russia, Estonia, and East Germany.

Russia: The Russian Republic declared independence in 1990 and began working toward a completely new educational orientation, based on a clear set of conceptual goals and orientations. These goals and orientations were actually set in 1988 at an institute for innovation, which was directed by the current Minister of Education in Russia, Eduard Dneprov. We could summarize the progress that has been made in Russian education in the following way:

1. The Ministry of Education has a clear conceptual

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framework on which it is working. It is based on two basic principles: democratization and humanitization. Democratization deals mainly with the development of the capacity to make choices and to work collaboratively with others in making choices that affect more than one person. Humanitization is a rather awkward word in English, and is intended to suggest a commitment to the humanities as reflected in the European educational tradition of Western philosophy, history, literature, etc., and humanistic education, which is oriented toward a child or human centered education. That is, the development of the full personality of the whole person.

2. The top levels of the Central Ministry of Education has been fully revamped in terms of personnel. The people in all positions of major authority have a declared commitment to the conceptual framework that had been developed.
3. The various elements of the system have initiated pilot projects intended to reflect the conceptual orientation of the Ministry of Education. The results of these projects are receiving significant media attention, in order for schools to have tangible models by which they can reorient their own work.
4. Work has progressed in terms of textbook preparation and publication of materials that reflect the conceptual orientation of the Ministry (Rust and Dalin 1992).

Of course, major efforts have been made in various other directions, although these efforts are mainly for the purposes of sustaining the system rather than transforming it. For example, in the first year after declaring independence teacher salaries were increased dramatically, although inflation rates appear to have wiped out these increases. Efforts were also made to develop commercial enterprises within the educational system itself, to participate in the production of equipment for education, including blackboards, pencils, chalk, and furniture. These efforts have not shown dramatic success, but they illustrate creative attempts to cope with a situation that is, by all reports, extremely difficult.

To summarize the change strategy in Russia, a clear conceptual framework has been set that is intended to guide all areas of reform, then model programs are set up to serve as a stimulus for reform throughout the country. It intends to ensure that ethnic groups and nationalities will have an extreme degree of autonomy, and that schools shall become largely self-defining.

Estonia: The Estonian Ministry of Education has embarked on an ambitious program of school reform that touches on almost every aspect of the school program. Its first major undertaking has been the establishment of an educational law, which spells

out the aims and objects of education as well as the basic structure of schools. The aims are both negative, in that they are to break from the socialist past, and positive, in that they point to the development of education from a "national point of view." The basic structure includes a six year primary school after which pupils are channeled into academic and vocational streams.

In interviews with those at the ministry of education, it has become clear that education should be decentralized and that financial arrangements must be developed to include local and central spheres of jurisdiction. The Ministry also proclaims a commitment to private schooling, though all teachers are to be paid through public funds. The Ministry is presently in a struggle with the Parliament, which wants to define the curriculum for all schools. The Ministry feels it must retain the right to define the content of schools. The status of teachers is also in the air. There is a strong current of opinion in the Ministry about returning teachers to a "civil servant" status, but that has not yet been resolved. The Ministry is also trying to deal with the issue of language instruction. There is great tension about the continuation of Russia and the emerging role of English, German and French. Another explosive issue within the Ministry has to do with the Russian language schools, schools for Russian nationals in the country. Some wish the schools to be transformed into Estonian schools, even with the Estonian language, but the issue is not yet settled. The Ministry is also struggling with the concept of "mainstreaming" and the fate of special education schools. The Ministry is also attempting to make sense out of Gymnasien and vocational schools.

To summarize the change strategy in Estonia, the political machinery is actively involved, not only in setting educational policy but defining fairly specific aspects of the educational program. At the same time the Ministry of Education has identified a monumental range of issues that need to be resolved and is working actively to resolve these issues. In fact, those at the highest levels of the Ministry maintain that it will take at least a decade to put the educational machinery in place.

c. **East Germany:** The new states of Germany are undergoing dramatic transformation. The old system has been swept away and all states must define their educational programs in conformity to existing West German constitutional and Standing Conference agreements. This ensures the establishment of private schools. It centralizes all vocational education, which means the East must conform in detail to the West German system. It demands that all states provide options for three types of school leaving certificates (Haupt, Real and Gymnasium). It requires that all teachers meet West German qualifications. In the fall, 1991 children in four of the five states began attending schools according to these new structures the new schools and this past year has represented a critical period of adjustment to the new

school imperatives (Berlin has been combined with West Berlin). The fifth state, Saxony, will undergo the same transformation in the fall, 1992. Each state has a slightly different model, as do the states of West Germany, but generally schools place young people in a brief four or six year common school after which young people are tracked into different school types, including the **Hauptschule**, the **Realschule**, or the **Gymnasium**. However, the **Gesamtschule** has proven to be more popular in the new East German states than expected, although that note is deceptive, as most children who would typically be in the **Hauptschule** have opted for the **Gesamtschule**, which means that institution is in real trouble. It cannot really provide a comprehensive program when 60% or more are from the lower level of the achievement scale, so the comprehensive school in the new states has a future as dubious as in West Germany.

Programmatically, all curricula, textbooks, and instruction related to communist upbringing and personality formation have been abolished and are being replaced by a program sympathetic to West Germans. Religion plays a growing role in the discussion of new curricula and school rituals, although surveys of parents indicate a clear lack of support for religious instruction. Private schools and alternative schools, which had been prohibited under the old regimes, are now seen as a major component of the emerging educational system. Foreign language teaching has taken a decisive turn, where Russian is being replaced by English and French as the first foreign languages to be learned. The highly centralized management has been turned over to the five new federal states that have come into existence. Vocational education, which was closely linked to communal farms, industries, and businesses, is struggling to survive the wholesale privatization process taking place. Apprenticeship places are almost non-existent at the present time, and new incentive schemes are emerging to attract employers to participate in apprentice programs.

To summarize the change strategy in East Germany, the educational system is being incorporated into the West German system. Provisional educational laws have been set in all states, which conform to the laws and agreements in the West. Extensive resources are being made available for textbooks, teacher development and the development of new curricular programs. Most of these resources are coming from the West.

Flaws in Educational Developments

On an intuitive level, it ought to be apparent that the three above national change efforts are heavily flawed. In the Russian case, there is a heavy effort at conceptual development, but almost no ability to penetrate to the regions and schools themselves. In fact, the whole communication system has broken down. Previously, the channels of communication between all institutions and levels had been filtered through the Communist Party officials. With the abolishment of the Communist Party role in the educational bureaucracy, its major communications

mechanism has also been destroyed. Consequently, it has been almost impossible for the democratically oriented Ministry of Education to obtain a clear picture of developments within these levels. In Estonia, the heavily understaffed Ministry is buried under a monumental array of things it has identified as necessary to change. And in the schools, there is little incentive to act, because the central Ministry talks as if it is taking care of things on all fronts. In East Germany, a foreign system has imposed itself on a culture that has grown in quite a different direction from West Germany. Consequently, those in the schools are almost totally alienated from the schools in which they work. They do not feel at home, they have no sense of ownership of the institutions. In addition, the kids are very unsettled. Just when they might benefit from some sense of structure and security, the schools are being totally revamped by a system that has almost no experience in school administration.

Theoretical Imperatives

As I have confronted these and other developments, I have found the theoretical orientations I had relied on also flawed. They were inadequate as sources of insight and interpretation. In social science, two schools of thought have characterized our intellectual world. The orientation which has long dominated social science came from so-called structuralists, who were committed to the idea of equilibrium and homeostasis. By equilibrium, we understood that any system attempts to maintain a condition of balance among the forces, both internal and external, to which it is subjected, and the ideal was seen to be a condition of homeostasis, or the endeavor of the system to maintain a condition of self-equilibration. Equilibrium was not only the model, but homeostasis was seen to be the ideal toward which social systems worked. In recent years, many have found this model to be inadequate in explaining how change occurs and why social systems evolve. It became clear that all open systems, including all social systems, were dynamic, and a number of theoretical orientations became popular to explain how that dynamic was maintained. These were popularly known as "conflict" theories, because the change dynamic appeared to come about through internal contradictions and power conflicts within the system itself. Those who challenged the old structuralists, with their focus on equilibrium and homeostasis, maintained that the system was never in a state of complete equilibrium, that there were internal contradictions preventing the system from maintaining that condition.

It seems somewhat ironic, but Marxist/Leninist ideas have a certain currency in their ability to help us interpret the way things are developing, at least as critical theory. It is especially valuable as a change theory, where capitalism is seen to create an internal set of contradictions and sources of stress, that lead to revision, change and even revolution. In Eastern Europe, Marxist/Leninist thinking plays itself out especially well in so-called dependency terms. The East,

Germans, for example, enjoy using the term "colonialized" to characterize what is going on. While this is most clearly seen in Germany, I think all of Eastern Europe is experiencing a bit of colonialization. Critical theorists, however, operate with the assumption that systems operate in a condition "near" equilibrium, because of the existence of conflictual elements and that these elements provided the dynamics for change and evolution . Of course, they recognize the possibility of radical change, which comes but under conditions of violent revolt and revolution, somewhat analogous to the "big bang theory" in astronomy, which requires an explosive beginning, which can only run down after that.

However, Marxist/Leninist theory as a positive set of ideas has almost no currency. It has been so identified with the corrupt totalitarian states of Eastern Europe, that it is almost impossible to talk in such terms. Its main weakness as a positive interpretation is that it proves to be pervasively normative. It defines a course of events that should take place, which often are not consistent with experienced reality. In addition, Marxist/Leninist thinking, as a positive ideology, is also, curiously, locked into the notion of equilibrium. That is, equilibrium appears to be some mythical ideal where peace and freedom will reign and all internal contradictions will disappear.

The social consciousness of the contemporary world, including the revolutionary events in Eastern Europe have forced me to think in two directions: First, it becomes absolutely necessary to move beyond the broad strokes that comparativistsseem to enjoy and to think in more micro-theoretical terms, in terms related to schools and teachers. Second, it becomes absolutely necessary to think in terms far beyond the dynamics even stressed by the conflict theorists. I have been forced to try and deal with developmental capacities of systems that are not even "near" equilibrium, but which are "far from equilibrium" (Loye and Eisler 1987; Jantsch 1980).

The School as a Focus of Change

In terms of micro-analysis my own inclination is to focus on the individual school as a source of change. Unfortunately, we in comparative education have almost no theoretical experience with schools. Most of the theoretical literature on schools comes out of management and organization development. These schools of thought have long been indicted for their heavy focus on equilibrium and consensus, which is of little value in today's turbulent Eastern Europe (Dalin and Rust 1983). There is a rather long history of school analysis in countries such as Germany, which have struggled to develop a "theory of school" (Rolff 1991; Benner 1978; Adl-Amini 1976; Fend 1974). Her consensus has emerged that school theory is best expressed in terms of the relationship between the school and the society where it exists (Rolff 1988).

In the change literature of the West, it has become

increasingly clear that the school must be central in any effective change process (Dalin and Rust 1983). Schools must always be viewed as subsystems of much larger systems. They are never completely autonomous. They must work in conjunction with the rest of the system, which plays a large role in their ability to survive and thrive. It is usually the larger system that ensures that the school has the funds and other resources to carry out its work. The large system also provides the framework within which a school is allowed to operate, and some sense of the standards it is expected to maintain. Within the change process, there are two ways in which a school may be seen, as part of the larger system. Most of the change literature deals with schools as institutions that are expected to adopt change strategies from external sources. To institutionalize change is, in other words, to change according to some grand design, to take on the characteristics of policy or some project. However, there is a second sense of institutionalization, which is to create a framework, to bring about a working model, to help the school develop the capacity to engage in its own development process (Rolff 1991). In this sense, the larger system is a support system rather than a directing system.

The literature on change has been very conclusive, that centralized change processes that impose themselves on the schools will be met with excessive and usually effective reactions against the processes. It is for this reason that schools have been increasingly characterized as extremely stable, almost static, in nature (Dalin 1973; 1978).

We have blessed little information about how to bring about successful change. One of the more comprehensive studies was done by Huberman and Miles, which was of 12 school sites and their districts attempting to implement Federal initiated innovations. They study is of particular interest because it illustrated a number of principles. It illustrated the complexities of the change process, the various motives for change, the difficulties experienced during early implementation, the need to demonstrate practice change, the importance of external support, the transformation that takes place (with the innovation as well as with the organization), and what leads to more widespread use, the impact on students and institutionalization. They conclude with a number of dilemmas that face any change process. fidelity vs. adaptation; centralized vs. dispersed influence; coordination vs. flexibility; ambitiousness vs. practicality; change vs. stability; career development vs. local capacity. These dilemmas must somehow be balanced against each other. It illustrates as well as any study under what circumstances the change process works at the local level and what the pitfalls are (Huberman and Miles 1984).

Dynamic Systems

These dynamic conditions do not belong to the realm of outdated schoolbook dynamics, with its deterministic, linear, and

predictable change models, its focus on probabilities based on laws of large numbers and "normal" distribution curves. I am acutely aware that social life is "sandwiched between the dangerous uniformity of equilibrium and the dangerous chaos of turbulence (Prigogine and Allen 1982: 14); however, nonlinear, complex, turbulent conditions, with their amplifying causal loops, are coming to be seen as the most conducive for growth and development. In other words, even though we tend to think chaos is frightening and disorienting, it is the condition under which most development and growth takes place. It has great positive potential (Schieve and Allen 1987; Prigogine and Stengers 1989; Maruyama 1980; Krohn, Kueppers and Nowotny 1980; and Haken 1988).

Because the newer theoretical orientations are coming forth from so many disciplines, the terms used are often not consistent. However, they reflect similar concerns, as labels such as chaos, transformation, self-organization, catastrophe, dissipative organizations, autopoiesis, and synergetics have already become somewhat common, and they form the foundation for newer thinking that deals with change and its relationship with very unstable conditions.

Through the work of people in various disciplines, and through the events taking place in Eastern Europe, we are beginning to construct a new paradigm for change. Under this new orientation, certain phases follow linear principles, but other phases highly randomness and indeterminacy, and through all of this feedback loops provide the energy for continuous and developmental change.

The bright aspect of this newer thinking is not a pessimistic view of total indeterminacy in periods of chaos, but to realize the role we can play not only in better understanding how change takes place, but where intervention is possible and where prediction and intervention is problematic. All of Eastern Europe finds itself in a period of extreme turbulence, but the greatest positive changes are possible under these conditions.

Central to the newer thinking is the concept of "self-organizing" capacity in all open systems (Jantsch 1980; Krohn, Kueppers, and Nowotny 1990; Schieve and Allen 1982; and Haken 1988).

We shall extrapolate from Jantsch (1980: 31) to summarize our position about social and institutional change.

1. Environments must be open with respect to exchange of resources and information. It is silly to debate whether centralized or decentralized systems are most conductive to change. More important is the open interplay between central authorities and local institutions. Under given conditions there is a capacity at the local level for orderly transformation to take place. This suggests an important role for central and regional leaders. We have long held that creative schools are those which are able to respond to environmental stimulus, but have internal capacity to initiate and innovate (Dalin and Rust 1983). In this

model, central authorities have the responsibility to provide the conditions that facilitate development at the local level, to help release self-organizing capacity, to intervene in such a way that micro-structures operate in productive and constructive ways. In other words, we maintain that in periods of great instability there is a clear, important role for central and regional leadership working jointly with local entities.

2. Systems must be operating in a condition that is not static or in a state of equilibrium. In fact, from this perspective equilibrium is actually seen as a state of entropy, a state of death. All living, developing systems exhibit so-called autopoietic characteristics. That is, they are continually renewing themselves, but the renewal process is regulated such that upgrading and downgrading processes operate simultaneously in such a way that the integrity of their structure and functions is maintained.
3. The forces for development in any system have autocatalytic characteristics. That is, there are feedback mechanisms which tend to amplify elements of the system, which are turned loose and create a runaway effect. It is a force which multiplies itself, which might even be characterized as a self-amplifying process, that takes over the system. Under turbulent conditions, internal forces may be released, which under normal conditions are held in check. Chaos theorists have given this process the attractive name of "the butterfly effect," which comes from weather forecasters, who find that the slightest conditions of variance in weather, such as a butterfly in China, amplify themselves through reciprocal causal loops in such a way that weather conditions in the United States, even given almost identical initial conditions, are almost impossible to predict (Lorenz 1979).

Explanatory Power

With this brief outline, we ought to see to what extent the concepts are appropriate to actual events. I shall refer to activities I have identified in my fieldwork of East Germany at the time the wall came down in Berlin as a means of testing the explanatory power of the theory.

After the summer vacation of 1989, when the borders of Hungary had been opened, the situation reached a point of crisis in many schools. The developments led to severe tension in the minds of most teachers, as they struggled between having a sense of loyalty, a desire to maintain harmony and stability, and a sense of criticism and challenge. A school was often thrown into a state of emergency when an event had a direct bearing it. For example, a teacher of a school might suddenly disappear, and it would eventually become clear that the teacher had chosen to

leave the GDR via some escape route. This often resulted in a special meeting of parents and staff, to explain the event. Such meetings usually widened the breach between reform elements and conservatives, because some teachers would inevitably defend the decision the teacher had made, while others labelled them as "traitors" and made impassioned pleas to hold firmly to the course set by the leaders of the GDR. As the situation reached a crisis stage, significant numbers of teachers and pupils participated in protest demonstrations and it became clear that a change of course would be necessary.

Even so, November 9, when the wall came down in Berlin, was a great shock to almost all teachers. It would be very difficult in one paragraph to characterize the variety of reactions of teachers. I have talked with teachers as far away from Berlin as Rostock, who went to West Berlin that first weekend, and a surprising number of Berlin teachers went across the border that first night. In fact, some schools were holding a parent night on that very evening, and when the news broke that something was up, the entire faculty of some schools left together and spent the night in West Berlin. At the other extreme I have listened to a significant number of accounts by teachers, who claimed they were almost frozen with fear. The wall had actually represented a protective element in their lives, keeping out all the trouble-makers, the radicals, the physically dangerous, the exploiters. To these people the break in the wall symbolized the death of something they had devoted themselves to as well as a sense of security. These people trembled in fear of an uncertain future.

Schools are some of the most stable institutions in any society. Those of us who are intentionally working to change institutions often express frustration with this stability; however, the events of November, 1989, indicate that this stability reflects an important positive side. When the wall came down, the GDR found itself in a state of total disruption. The traditional authority structure, including the educational authority, disappeared almost over night. The directors of the individual schools, lost their legitimate role as leaders. Given an almost total vacuum of authority from the Minister of Education down through the school leaders, it is significant that the schools continued to function as efficiently and actively as ever. Teachers in the German schools themselves have various explanations for what happened, but the common element to these explanations is that in periods when conditions are far-from-equilibrium, the teachers fall into a reliance on what might be described as a higher humanitarian law: "We are responsible for the kids, and must be there for them." Of course, there was great frustration about what to do, how to teach, what content to use, what source material to rely on, how to react to a school leader, who represented the old system. But this was accompanied by a sense of life, and feeling of joy. Ideas were springing up everywhere. It was a period when enormous freedom was found in all schools.

As evidence of terrible activities and processes in the old

GDR came to light, those who had committed themselves to its spoken ideals began to feel a sense of having been betrayed by the leaders, the Stasi, and the "system." This sense of betrayal shifted quickly to a sense of guilt and almost always a sense of insecurity and self-doubt. However, the total loss of the authority structure created a condition ideally suited for radical change.

Within a short time these immobilizing psychic energies were quickly released and became channeled toward change, some of a radical nature. The next months might be characterized as one of the most energizing periods imaginable. I have visited literally dozens of schools, and so far, in every single school I have visited, there were efforts to rethink the entire program and to propose a new, more appropriate form and content of education. In some schools, the entire staff became engaged in the process of institution definition and development. In other schools, the efforts were centered on a small cluster of teachers who took the initiative. Significant numbers of schools called on the Academy of Educational Sciences and the universities to help them work out plans that would reflect the freedoms they had struggled to attain.

Until this time, it would be fair to say that the liberation of East Germany and its reorientation had come entirely from the East Germans themselves. It had been the East Germans, who had taken all the risks and all the initiative. However, by the spring of 1990, a shift in orientation became increasingly apparent. The liberation of East Germany began to take on the character of a victory on the part of the West Germans. This became especially evident as more and more people in high places of the old GDR were found to have had a shadow-side in their past. The East Germans again became immobilized by their own sense of complicity with their past. As more and more people became identified as having participated in the regime in some negative way, there developed a growing sense of general guilt. Of course, this was not the case, but the genuine ideals so many teachers had held were now identified with a grotesque ideology. Commitment on the part of teachers was transformed to a willing participation in the totalitarian regime. Any sense of goodness in what teachers had maintained was fused with the indictment: "Yes, your goodness is like the good things that happened under Hitler." It was made illegitimate and negative, a source of embarrassment.

We can see in this account almost all of the elements of the above theoretical orientation. There was enormous environmental influence, both positive and negative, that affected the school. Through all of this, the schools retained the capacity to retain their structure and function, even while they themselves were undergoing radical review and assessment. The schools undertook a flurry of reform activity, which was so striking that it became almost a runaway process. Because of the proximity of Berlin and West Germany, the teachers engaged in enormous interchange with schools in these parts, mainly on the initiative of the East

German teachers. Finally, the heavy hand of the West crushed this self-organizing activity and imposed a foreign structure, that has almost destroyed any ability for creativity on the part of the individual schools. All of these things are fully consistent with the theoretical framework outlined above.

Keying off Self-Organizing Theory

Legitimate theory might also serve as a guideline to practice, and I shall turn to our Russian situation to illustrate. We recall that the schools are not yet even in the equation of change in Russia. It may be that significant things are happening in the schools. At this point we are unclear as to self-organizing activities that might be taking place; however, we shall focus here on what we know, which is the central ministry and how it might assist schools to transform themselves. Hypothetically, we might ask, "If you were giving Eduard Dneprov advice about how to ensure that the schools transform themselves, what would you tell him?" Within our theoretical framework, a number of support activities come to mind.

- Continue to develop exemplary models, not to be imposed but to demonstrate a number of possibilities.
- In-Service Teacher Development Programs must be initiated which allow teachers to explore implications of the conceptual design related to democratization and humanitization.
- An accountability ought to be set up that provides a "feedback loop" for district, regional and central authorities, so they can monitor developments.
- A networking process ought to be set up. It is unwise for individual schools to undergo such a process in isolation, and administrative units can facilitate networks of schools engaged in similar endeavors.
- Textbook production is a high priority, because it is impossible for local entities to engage in certain activities that are vital to the educational enterprise.
- The nationalities problem is the most explosive issue in the Republic. It can only be dealt with from a central vantage point, and it is imperative that the legitimacy of cultural differences be supported in the schools, and that it go so far as to celebrate those differences. However, policy must in some sense be ultimately integrative and incorporative.

These are but a few ways in which central authorities can act as a support element for self-organizing activities taking place at the local level.

Theory Plays Back on Our World

As I have attempted to lay out, the events of Eastern Europe have required fundamental reassessment of our Western theoretical tools. Perhaps the most important insight is that all social systems that are alive are in a constant state of turbulence. Of

course, there is stability; otherwise the institutions are unable to develop, but if they reach a state of equilibrium, they are also unable to develop. Schools are active, changing, continually renewing themselves, and our investigations of them ought to reflect this new profoundly important insight.

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